

AMENDMENT - claims

Please amend the claims, as follows:

1. (currently amended) A method for treating or preventing ischemia or hypoxia ~~cardiovascular or cerebrovascular disease~~ in a mammal, comprising administering an agent that alters the activity or concentration of an enzyme in an amount effective to treat or prevent ischemia or hypoxia ~~cardiovascular or cerebrovascular disease~~ in a mammal, wherein said enzyme catalyzes a reaction that produces or degrades a sphingolipid or a sphingolipid metabolite, and wherein said agent is not an aminoglycoside and is selected from the group consisting of a small molecule, a protein, a polypeptide, and a polypeptide derivative.
2. (currently amended) A method for treating or preventing an undesirable post-ischemic event in an animal, comprising administering ~~thereto~~ to an animal an agent that alters an ~~the~~ activity or concentration of an enzyme in an amount effective to treat or prevent an undesirable post-ischemic event in a mammal, wherein said enzyme catalyzes a reaction that produces or degrades a sphingolipid or a sphingolipid metabolite, and wherein said agent is not an aminoglycoside and is selected from the group consisting of a small molecule, a protein, a polypeptide, and a polypeptide derivative.
3. (previously presented) A method according to claim 2 wherein said undesirable post-ischemic event occurs in the heart.
4. (previously presented) A method according to claim 2 wherein said undesirable post-ischemic event occurs in the brain.
5. (currently amended) A method for treating or preventing ischemia or hypoxia ~~cardiovascular disease~~ in a human, comprising administering an agent that alters an ~~the~~ activity or concentration of an enzyme in an amount effective to treat or prevent cardiovascular disease in a human, wherein said enzyme catalyzes a reaction that produces or degrades a sphingolipid or a sphingolipid metabolite, and wherein said agent is not an aminoglycoside and is selected from

the group consisting of a small molecule, a protein, a polypeptide, and a polypeptide derivative.

6. (previously presented) A method according to claim 5, wherein said sphingolipid or a sphingolipid metabolite is selected from the group consisting of sphingomyelin, sphingosine, sphingosine-1-phosphate, ceramide, sphingosylphosphocholine, 3-ketosphinganine, galactosylceramide, and dihydroceramide.

7. (previously presented) A method according to claim 5, wherein said enzyme is selected from the group consisting of sphingomyelin synthase, sphingomyelin deacylase, sphingomyelinase, ceramidase, sphingosine-1-phosphate phosphatase, sphingosine kinase, ceramide synthase, sphingosine-1-phosphate lyase, cerebrosidase, ceramide-1-phosphate phosphatase, ceramide kinase, sphingomyelin deacylase, serine palmitoyltransferase, and NADPH-dependent reductase.

8. (previously presented) A method according to claim 5, wherein said enzyme is sphingomyelinase.

9-14. (cancelled)

15. (currently amended) A method according to claim 1, wherein said ischemia or hypoxia effects cardiovascular tissue disease is a cardiovascular disease.

16. (currently amended) A method according to claim 15, wherein said cardiovascular tissue disease is a cardiac tissue disease.

17-18. (cancelled)

19. (currently amended) A method for treating or preventing ischemia or hypoxia cardiovascular or cerebrovascular disease in a mammal, comprising administering a pharmaceutical composition comprising an agent in an amount effective to modulate an the

activity of an enzyme that catalyzes a reaction that produces or degrades a sphingolipid or a sphingolipid metabolite, and wherein said agent is not an aminoglycoside and is selected from the group consisting of a small molecule, a protein, a polypeptide, and a polypeptide derivative.

20. (cancelled)

21. (currently amended) A method according to claim 7 19 wherein the enzyme is sphingomyelinase and the agent is selected from the group consisting of: sphingomyelin derivatives, scyphostatins, manumycin, quinines, ubiquinol, ubiquinones, sphingomyelin methylene, anthracyclines, carnitine, desipramine, alutenusin, SR3357, adriamycins, and roselipins.

22. (currently amended) A method according to claim 7 19 wherein the enzyme is sphingomyelinase and the agent is selected from the group consisting of an anti-oxidant, ascorbate, alpha-tocopherol, glutathione, desipramine, and DTT.

23. (currently amended) A method according to claim 7 19 wherein the enzyme is sphingosine kinase and the agent is selected from the group consisting of N, N-dimethylsphingosine, D-threo-dihydrosphingosine, and a sphingoid base.

24. (currently amended) A method according to claim 7 19 wherein the enzyme is ceramidase and the agent is selected from the group consisting of N-acetylsphingosine, (1S,2R)-D-erythro-2-(N-myristoylamino-1-phenyl-1-propanol, (1S,2R)-L-erythro-2-(N-myristoylamino-1-phenyl-1-propanol, and N-oleoyl-ethanolamine.

25. (currently amended) A method according to claim 7 19 wherein the enzyme is ceramidase synthase, and the agent is selected from the group consisting of Fumonisin B1, an alternaris toxin, a viridifungin, and an astralifungin.

26. (currently amended) A method according to claim 7 19 wherein the enzyme is ceramide

-1-phosphate phosphatase, and the agent is selected from the group consisting of sodium fluoride, propranolol, phenylglyoxal, and N-ethylmaleimide.

27. (currently amended) A method according to claim 7 19 wherein the enzyme is ceramide -1-phosphate phosphatase, and the agent is a cyclopropene ceramide.

28. (currently amended) A method according to claim 7 19 wherein the enzyme is serine palmitoyl transferase, and the agent is selected from the group consisting of: lipoxamicin, a sphingofungin, an isaria sincairii compound, L-cycloserine, beta-chloro-L-alanine, myriocin, and thermozytocidin.